

## **SP-T10 Effects of Project Features, Operations and Maintenance on Upland Plant Communities**

*October 25, 2002*

### **1.0 Introduction/Background**

Current and future operations of the Oroville Facilities may impact upland plant communities, including rare or unique community types. These impacts can be from any project-related activity that alters, degrades, destroys, or enhances habitat features necessary to support that plant community type. Changes in land use, maintenance and operation activities, or recreational use of an area could potentially affect plant communities within the Study Area.

A qualitative assessment and analysis of project-related impacts on the plant communities can provide program managers and stakeholders the information necessary to identify those management options or project modifications, which minimize project-related impacts.

### **2.0 Study Objective**

The objective of this study is to identify direct and indirect impacts of project features (facilities, operations, maintenance, and recreation) on upland vegetation communities including rare or unique plant communities.

### **3.0 Relationship to Relicensing/Need for the Study**

Relicensing participants have identified project-related facilities, operations, maintenance, and recreation facilities and associated activities as having a potential effect on upland plant communities. An evaluation of project effects on botanical resources is also required for California Environmental Quality Act/National Environmental Policy Act (CEQA/NEPA) compliance, and will be included in the Federal Energy Regulatory Commission (FERC) license application.

The information collected will be used to identify opportunities to minimize or mitigate project-related impacts to plant communities and to identify potential areas for enhancement through revegetation and restoration of a site (protection, mitigation, and enhancement measures).

### **4.0 Study Area**

The Study Area includes all areas within the FERC project boundary and other areas potentially affected by project recreation facilities and use. An analysis of downstream Feather River riparian habitats will be analyzed under SP-T3/5. For ESA analyses and their associated plant communities, the study area is defined in SP-T2. Study plans approved by the Environmental Work Group define the limits of the study area. If initial study results indicate that the study area should be expanded or contracted, the Environmental Work Group will discuss the basis for change and revise the study area as appropriate.

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## 5.0 General Approach

If initial study results indicate that the methods and tasks should be modified, the Environmental Work Group will discuss the basis for change and revise the study plan as appropriate.

### Task 1 - Data Collection and Review

Collect and review information affecting plant communities in the study area. Data to be collected include vegetation communities mapping and analysis (SP-T4); noxious weed locations and dispersal and management options (SP-T7); state and federal special status species analysis (SP-T2); riparian and wetland issues (SP-T3/5); fuels management (SP-T11); pesticide use (SP-LU2); pesticides in water samples (SP-W2); and soil types and topography information (SP-G1/G2). Obtain and review current and future project-related facilities data from the Recreation Work Group (SP-R5, SP-R9, SP-R10, SP-R17); and the Land Use Work Group (SP-LU1 and SP-LU2). Review current literature on the natural community types found within the study area and factors affecting their distribution.

### Task 2 - Analysis of Project-Related Effects on Plant Communities

Evaluate upland plant community status within the study area. This assessment of lands within the Study Area will include an analysis of the current vegetation patterns, unique or rare habitats, habitats that support special status species, and the factors affecting their distribution, composition, and condition. It will assess the effect of noxious weed populations and the planting of non-native plant species for wildlife forage on native plant communities. It will describe current and future project related effects on these vegetation communities, including recreation, maintenance and operations, land use changes, pesticide use, and fuels management and will identify opportunities to minimize the adverse impacts.

### Task 3 - Identify Areas for Revegetation and/or Restoration

Identify opportunities where appropriate to enhance or restore native plant communities within the study area by using information obtained in Tasks 1 and 2 above. This will include an evaluation of conditions necessary for the maintenance of healthy plant communities and opportunities to enhance upland habitats, special status species habitat and rare or unique habitats found within the Study Area.

### Task 4 - Draft Report

A draft report will be prepared summarizing initial study results.

### Task 5 - Final Report

A final report will be prepared summarizing project-related impacts on upland plant communities (including rare and unique habitats) and potential protection, mitigation, and enhancement measures.

## 6.0 Results and Products/Deliverables

A Summary Report will be produced which will identify current and future potential projects effects to native plant communities within the Study Area. This qualitative assessment will include current vegetation patterns, project-related effects, enhancement opportunities, and proposed guidelines for future development of

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facilities or land use that will minimize impacts to local native plant communities. This report will provide the basis for development of protection, mitigation and enhancement measures and settlement agreements related to upland plant communities.

## **7.0 Coordination and Implementation Strategy**

### ***Coordination with Other Resource Areas/Studies***

Information will be needed from other terrestrial resource studies including SP-T2 (special-status species), SP-T4 (Biodiversity); SP-T3/5 (Riparian and wetland issues); SP-T7 (noxious weeds); fuels management (SP-T11); and SP-G1/G2 (soils and topography). Information on current and future project-related land-use activities will be needed from the Recreation Work Group (SP-R5, SP-R9, SP-R10, and SP-R17), and Land Use Work Group (SP-LU1, SP-LU2, and SP-LU5) for the evaluation of project-related effects on natural plant communities.

### ***Issues, Concerns, Comments Tracking and/or Regulatory Compliance***

This study will address the effects of existing and future project features, operations and maintenance on upland habitat, including revegetation and restoration efforts. This study fully or partially addresses the following Stakeholder issues:

#### ***Stakeholder issues fully addressed by SP-T10 Effects of Project Features, Operations and Maintenance on Upland Plant Communities***

- TE40—native plant landscaping (potential sites: Feather River Fish Hatchery, State Parks Headquarters, DWR Field Office, Spillway Launch Facility - future) and restoration of native plant communities

#### ***Stakeholder issues partially addressed by SP-T10 Effects of Project Features, Operations and Maintenance on Upland Plant Communities***

- TE62—protection and sustained conservation of terrestrial wildlife and flora in the project-affected area; comprehensive and well-crafted planning; G3 and W7.

## **8.0 Study Schedule**

The schedule is dependent on the completion of work by other terrestrial studies and by the Recreation, Land Use, and Engineering and Operations Work Groups. Task 1, 2, and 3 will be completed in September 2003. An interim report will be completed in January 2003. A draft report produced in Task 4 will be completed in October 2003. The final report (Task 5) will be completed in September 2004.